

of muscle occurring in *Notykus kilossensis* is mentioned by Michaelsen in *Notykus emini*.

It will be plain from the above account of the spermathecal sac in the two mature examples of my new species, A and C, that there are differences between them which are probably to be put down to greater maturity in the specimen A than in C. The muscular bags lying over the posterior region of the spermathecal sac in A are much thicker than the thin sheet which is described above in the bisected individual C. Their lumen also appears to be continuous with that of the "Nebentaschen," with which, indeed, they seem to be quite continuous structures—a backward extension, that is to say, of the "Nebentaschen." The conditions observable in specimen C may indicate that the actual origin of the "Nebentaschen" and the posterior sacs of the spermathecal sac are distinct. But I have not ascertained whether the undoubtedly more delicate muscular layer of the posterior region of the spermathecal sac in C is actually double, and, therefore, contains a lumen. Intermediate stages appear to me to be wanting—the two do not constitute a chain without a break.

LXIV.—*On some new Mammals from Korea and Manchuria.*

By Prof. T. MORI, Keijo High School, Seoul, Korea.

IN the course of some studies of Korean and Manchurian mammals, undertaken in the British Museum (Natural History), by the kind permission of Sir Sidney F. Harmer and Mr. Oldfield Thomas, I have found the following hitherto unnamed mammals. The types of these have been presented to the British Museum.

Nyctereutes koreensis, sp. n.

Nyctereutes procyonoides, Gray, Thomas, P. Z. S. 1907, p. 464.

Type.—Adult male (skin and skull). Original number 2. Collected at Giseifu, near Seoul, Korea, January 24th, 1922, by Mr. Eizo Takahashi. B.M. no. 22. 10. 6. 6.

Diagnosis.—Size less than that of *Nyctereutes ussuriensis*, Matschie, and *N. amurensis*, Matschie, of the Amur region. Cheek darker, forehead and part under the ear whiter than in

Skull-measurements of Nyctereutes (in millimetres).

	<i>viverrinus</i> .		<i>koreensis</i> .				<i>procyonoides</i> .				<i>usuriensis</i> .		<i>amur-ensis</i> .
	♂. 2.5.30.2 Japan.	80.3.20.2 Japan.	I. Korea.	II. Korea.	III. Korea.	2.6.10.20. China.	10.21. China.	2.6.10.19. China.	7.7.3.6. China.	7.7.3.7. China.	A. 4987.	4937.		4555. Amur.
Greatest length.....	116	107	115	119	..	110	111	116	114	112	127.8	126.3	..
Greatest breadth.....	65.5	58	64	69	67	62	64	61	62	61.5	71.3	68.5	68.2
Basal length.....	108	103	107	110	..	103	102	..	104	104	118.3	118.3	115.1
Nasal length.....	42	43	40	46	42	42	40	44	43.5	46	48.2	45.1	43.2
Length of naso-frontal suture.	17.5	17.5	18	21.5	21	15	17	15.5	18.5	17.5	..	..	..
Length of naso-premaxillary suture.....	22	16	22.5	25	21	17	18.5	18	19.5	18.5	..	..	..
Breadth of premaxillæ....	14.5	14	15	16	15.5	14	13.5	14.5	14	15	..	..	..
Breadth of maxillæ over the canine.....	19	18	20	22	22	19	20	20	20	19.5	..	..	..
Palatal length.....	57.5	52	53.5	55.5	54	57.5	52.5	..	56	58	61.4	63.4	62.4
Length of upper molar row....	39	37	37	39.5	38.5	38	36	38	39	39	39.8	40.5	39.7
Length of mandible.....	79	79	87	91	85.5	85.5	84	83	85.5	84	95.5	93.8	90.6
Height of mandible.....	46	39.5	47	49	43.5	44	44	44	43.5	45	50.4	49.7	46.7

the Chinese *N. procyonoides*, Gray, and Japanese *N. viverrinus*, Temminck; and central black stripe conspicuously like the mane.

Skull with zygomatic arch wider and auditory bullæ larger. As distinguishing character, premaxillæ extend backwards to the narrow point of the projecting frontals, thus completely cutting off the maxillæ from the nasals.

Colour.—Fur very long, soft, and thick. Head: cheek black, nose tawny olive, forehead whitish with blackish tip to the hair, and under the ear white with long white hair. Ear rufous with dark brownish margin. From the top of the head over the neck to the shoulder-mane a single continuous black stripe; this stripe extends to the upper part of the body and down the hip. The upper part of the body and the hip rather dark brownish, with black tip and greyish-white base to the long hair (length 90 mm.) and thick buff underfur. The sides of the body covered with dark brown intermixed with greyish-white hair. Chin dark slate, throat and breast of a dirty fawn-colour, with dark brownish tip to the hair. Tail bushy, end and upper part blackish, underpart buff. Foot blackish slate.

Dimensions (from dry skin).—Head and body 660 mm.; tail 180.

Skull: greatest length 119; basal length 110; greatest breadth 69; nasal length 46; length of naso-frontal suture 21.5; length of naso-premaxillary suture 25; breadth of premaxillary 16; breadth of maxillæ over the canine 22; breadth of the postorbital process 34.5; frontal length 50; palatal length 55.5; length of upper molar tooth-row 39; mandible length 91; mandible height 49; distance of M^2 to I^2 23.

Specimens examined.—Three, all from Korea.

I append (p. 608) my measurements of the skulls of *N. viverrinus*, *N. procyonoides*, and *N. koreensis*, with those of *N. ussuriensis* and *N. amurensis* given by Professor Paul Matschie, who describes them as new*.

Felis manchurica, sp. n.

Type.—A hult male (skin only). Original number 1. Collected near Mukden, the capital of Manchuria, February 14th, 1922, by Munekatsu Nagura. B.M. no. 22. 10. 6. 4.

Diagnosis.—This species can be distinguished from *Felis microlis*, A. M.-Edwards, and *Felis eupilura*, Elliot, with

* Paul Matschie, 'Ueber Chinesische Säugetiere, besonders aus den Sammlungen des Herr Wilhelm Filchner,' pp. 178-180 (1907).

which it is nearest allied, by its having (1) ground-colour whitish grey with whitish underfur, (2) two large dark brown stripes on the shoulder, (3) long, bushy, ringed tail.

Colour.—Fur soft, thick, and rather long. Ground-colour of the body whitish grey, covered with dark reddish-brown spots. On the head there are white lines each side of the nose and under the eye; two dark brown stripes in the centre, commencing at the top of the nose and on each side of it, and two more beginning at each eye, passing over the top of the head and down the back of the neck to the shoulders. On the shoulder are situated two large, oblong, blackish-brown patches, and on each side two long reddish-brown stripes; a dark brown stripe from the corner of the eye runs back across the cheek to the base of the ear, and another dark red stripe, starting below the eye, passes across the cheek and curves back under the throat. In addition, a dark brown line beginning behind the ear runs down each side of the neck, and, turning downward, forms the band. The centre of the back is much darker than the sides and marked with many confused dark brown spots. Cheeks, lips, throat, and breast white. The throat and breast crossed by four bands (some of which are broken) of the colour of burnt sienna. The belly is buff covered with chestnut-brown spots. Legs same colour as the body, but the feet and inside of the hind legs buff, with two or three imperfect rings on the fore legs and four or five similar rings on the hind legs. Tail long and bushy, reaching to the ground, with confused markings at the upper part of the base and twelve or thirteen narrow broken rings on the upper part of the remaining portion; tip of the tail black. Nose brown, with short hair. The inside of ear is buff, the back black with a white spot.

Dimensions (approximate) from skin.—Head and body 730 mm.; tail 350; hind foot 125; ear 38.

Charronia flavigula koreana, subsp. n.

Type.—Adult male (skin and skull). Original number 2. Collected at Korio, near Seoul, Korea, December 16th, 1907, by Mr. Eizo Takahashi. B.M. no. 22. 10. 6. 8.

Diagnosis.—This subspecies is most nearly allied to the Amurland *Charronia flavigula borealis*, Radde, but is very much paler in colour of upper part; underpart of the body with whitish underfur. Size smaller, tail shorter, and skull narrower. The white part of the chin extends sideways and reaches to the auditory canal, which is not the case in the Amurland form.

Skull-measurements of *Hydropotes* (in millimetres).

	<i>Hydropotes argyropus</i> .		<i>Hydropotes inermis</i> .				
	♂. Korea. I.	8.11.148. ♂. Shanghai.	8.11.14.10. ♂. Shanghai.	72.9.3.5. ♂. Shanghai.	6.12.5.14. Chinkiang.	7.7.3.32. ♂. N. China.	13.9.13.19. Hwong-ti-tze, Hupeh.
Greatest length	171	163	168	163	163	169	160
Basal length	149	144.5	148	145	144	156	139
Zygomatic breadth	75	71	69.5	72	72.5	70	65
Nasal length	59	..	56	49	52	58	54
Infraorbital breadth	35	31	33.5	33	32	30	29
Interorbital breadth	39	35	35	36	34	35	31
Palatal length . . . . .	..	31	96	90	96	99	94
Length of upper molar row	49	47	48	51	50	46	50
(Greatest breadth of maxillae over <i>M</i> ¹)	54	52	52	53	51	49	47
Length of tusk	56	53.5	48	51.5	..	46	48
Distance of base of both tusks	24	25	22	23.5	23.5	23	19
Distance of tip of both tusks	36	34	65	67.5	..	51	26
Length of bullae	19.5	21.5	21	21.5	21	21	22
Distance of tusk to <i>P</i> ¹	20	30	28	31	28.5	28	26

Colour.—Fur soft, thick, and rather long. The head, sides of face, feet, and tail dark brown. The dark stripes from the ears extend backwards. Upper part of the body buff, with whitish underfur, shading gradually to dark brown on the hind-quarters. The hairs of the nape and upper neck have buff tips with dark-coloured bases. Chin white, in hind part the whiteness extends sideways as far as each auditory canal. The throat light yellow and the rest of the underpart of the body whitish, with white underfur. Soles of the feet hairy.

Dimensions.—Head and body 590 mm.; tail 410; hind foot 103; ear 34.

Skull: greatest length 102; basal length 95; zygomatic length 57; least breadth at postorbital constriction 25; length of palate 45; least breadth of palate between carnassials 15.

Specimens examined.—Two, both from Korea.

Hydropotes argyropus, Heude.

Père Heude, in 'Comptes Rendus des Séances de l'Académie des Sciences,' tom. xviii. p. 1017 (1884), gives the name of "*Hydropotes argyropus*" for the Korean *Hydropotes*; but his description is very short. Therefore Mr. Lydekker inserted the synonym of *H. inermis*, Swinhoe, in 'Catalogue of Ungulate Mammals,' vol. iv. p. 258 (1915). But I think it a different species, from the following description of a specimen in my school, and I propose to use for it Heude's name "*Hydropotes argyropus*."

Locality.—Mokpo, Zenranando, Korea.

Diagnosis.—Size of skull larger than that of *H. inermis*, Swinhoe; the tips of the tusks curve slightly inwards, whereas in *H. inermis* the tips of the tusks have a conspicuously outward curve. The distance of tusk to P^1 very short. General colour lighter.

Colour.—General colour greyish white, underpart whitish.

Dimensions.—Head and body 35 inches; tail 3; hind leg 21.

Skull: greatest length 171 mm.; basal length 149; zygomatic breadth 75; nasal length 59; infraorbital breadth 35; interorbital breadth 39; palatal length —; length of upper molar row 49; length of tusk 56; distance of tusk to P^1 20.

Sus coreanus, Heude.

Père Heude, in his 'Mémoires d'Histoire Naturelle de l'empire Chinois,' tom. iii. 1896, pp. 191-192, gives the name of "*Sus coreanus*" after an examination of three skulls

Skull-measurements of Far East Wild Boar (in millimetres).

	<i>S. coreanus</i> .	<i>S. leucomystax continentalis</i> .	<i>S. leucomystax</i> .	<i>S. l. taiwanus</i> .	<i>Sus</i> sp.
	I. Korea.	Vladivostok.	80.3.20.29. Japan.	70.2.10.38. Formosa.	70.2.10.38. Shan-shai.
Greatest length.....	430	447	330	345	400
Basal length.....	305	303	285	305	345
Zygomatic breadth.....	155	165	130	150	167
Infraorbital breadth.....	41	..	33	37	37
Interorbital breadth.....	85	..	71	80	60
Postorbital breadth.....	112	..	92	108	118
Nasal length.....	225	..	164	170	194
Greatest breadth of nasal cavity.....	57	..	36	36	43
Palatal length.....	255	..	200	230	250
Length of $P^1 + M^3$	235	..	..	195	230
Length of $M^1 + M^2$	46	48.5	..	46	41
Length and breadth of M^3	37 X 22	breadth 23	40	31 X 20	41 X 22
Rostral depth of between P^1	73	..	length 19	68	68
Length of upper margin of lacrymal.....	66	73	48	51	46
Length of lower margin of lacrymal.....	29	36	24	28	..
Height of anterior margin of lacrymal.....	33	30	32	34	..
Height of posterior margin of lacrymal.....	30	31	22	25	..

of a wild boar from Korea, but that description was in some respects incomplete; therefore mammalogists do not mention it at all. I give here a detailed description from a specimen in my school, and I should use for it the name of "*Sus coreanus*."

Typical locality.—Tetsugen, Kogendo, Korea.

Diagnosis.—Similar to *Sus leucomystax continentalis*, Nehring, but skull narrower, premolars of each half upper jaw 4 instead of 5, lacrymal pits shallow and unrecognizable, infraorbital foramen narrow and high (breadth 8 mm., height 13), and posterior margin straight. Posterior portion of nasal, together with anterior portion of frontal, conspicuously convex. Nasal cavity broader. Anterior portion of the lower jaw slightly curved upwards.

Colour.—General colour brown (not black-brown). The streak from angles of mouth to lower jaw inconspicuous. Underpart brownish. The bristles along median line of neck and shoulder are lengthened and form a crest. Underfur dense and woolly.

Dimensions.—Skull: greatest length 430 mm.; basal length 355; zygomatic breadth 85; nasal breadth 225; greatest combined breadth of nasals 38; palatal length 255; length of $i^1 + M^3$ 235; rostral depth between P^4 73; greatest length of $M^1 + M^2$ 46; length and breadth of M^3 37 × 22; length of upper margin of lacrymal 66; length of lower margin of lacrymal 29; height of anterior margin of lacrymal 33; height of posterior margin of lacrymal 30.

LXV.—On Two Forms of the Korean Hedgehog.

By Prof. T. MORI, Keijo High School, Seoul, Korea.

THE series of five specimens of the Korean hedgehog shows that this strikingly characterized animal is represented by two readily distinguishable forms, which may be briefly defined as follows:—

Erinaceus dealbatus orientalis, Allen.

Erinaceus orientalis, Allen, Bull. Amer. Mus. Nat. Hist. vol. xix. pp. 179-181 (1903).

♀, Korea: original number II. ♂, Korea: original number V. From near Kanko, Korea.

A pale brown species allied to *Erinaceus dealbatus*, Swinhoe, by having wholly white spines intermixed with the pale